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antidotes to other narcotic substances,) would have rendered them harmless. And if we may be allowed to reason from analogy, I think we may presume, that there is scarcely a poisonous substance in nature but what has an antidote provided for it. What these antidotes are, can never be determined by reasoning a priori, but must be found out by experiments alone. Considering the frequency of the accidents which arise from poisons, and the little relief we are able to afford in them, I cannot help thinking an enquiry into this subject a matter of great importance, and well worthy of the attention of the Faculty of Physic.

*An ENQUIRY into the Nature, Cause, and Cure of the ANGINA SUFFOCATIVA, or Sore Throat Distemper, as it is commonly called by the Inhabitants of the City and Colony of New-York, &c. By SAMUEL BARD, M. D. and Professor of the Practice of Physic in King's College, New-York; communicated to JOHN MORGAN, M. D. F. R. S. Professor of the Theory and Practice of Physic, in the College of Philadelphia.*

“ *AS a faithful and accurate history of diseases, their various*  
 “ *symptoms and method of cure, is the most effectual way of*  
 “ *promoting the art of healing; Physicians should describe, with*  
 “ *the utmost care, the diseases they would treat of, and the good*  
 “ *and bad effects of any method or medicines they have used in*  
 “ *them. But in a more particular manner is this necessary, when*  
 “ *any new and uncommon distemper occurs, of which the peculiar*  
 “ *pathognomonic and diagnostic signs should be carefully laid down,*  
 “ *and a particular account given of what evacuations, regimen*  
 “ *and medicines were useful or hurtful in it.”*

*Huxham, on Fevers, P. 267.*

FROM a conviction of the truth and importance of these observations, and in obedience to the precept of so great a Man as Huxham, I have determined to attempt the history of a disease which has lately appeared among the children of this city, and which, both as an uncommon, and highly dangerous distemper, well deserves an attentive consideration. In  
 delivering

delivering it therefore, I shall first carefully enumerate the symptoms with which it was attended, and describe the appearances which occurred on inspecting the bodies of such as died of it; and then lay down the method of cure which has been found to be most successful in its treatment.

IN general, this disease was confined to children under ten years old, though some few grown persons, particularly women, (while it prevailed) had symptoms very similar to it. Most of those who had it were observed to droop for several days before they were confined. And the first symptoms, in almost every case, were a slightly inflamed and watery eye, a bloated and livid countenance, with a few red eruptions here and there upon the face, and in one case a small ulcer in the nose, whence oozed an ichor so sharp as to inflame and erode the upper lip. At the same time, or very soon after, such as could speak, complained of an uneasy sensation in the throat, but without any great soreness or pain. Upon examining it, the tonsils appeared swelled and slightly inflamed, with a few white specks upon them, which, in some, increased so as to cover them all over with one general slough; but this, altho' a frequent symptom, did not invariably attend the disease; and some had all the other symptoms without it. The breath was either no ways offensive, or had only that kind of smell which is occasioned by worms; and the swallowing was very little, if at all, impeded.

THESE symptoms, with a slight fever at night, continued in some for five or six days, without alarming their friends; in others a difficulty of breathing came on within twenty four hours, especially in the time of sleep, and was often suddenly increased to so great a degree as to threaten immediate suffocation. In general, however, it came on later, increased more gradually, and was not constant; but the patient would now and then enjoy an interval of an hour or two, in which he breathed with ease, and then again a laborious breathing would ensue, during which he seemed incapable of filling his lungs, as if the air was drawn through a too narrow passage.

THIS

THIS stage of the disease was attended with a very great and sudden prostration of strength; a very remarkable hollow dry cough; and a peculiar change in the tone of the voice; not easily described, but so singular, that a person who had once heard it, could almost certainly know the disease again by hearing the patient cough or speak. In some the voice was almost entirely lost, and would continue very weak and low for several weeks after recovery. A constant fever attended this disease, but it was much more remarkable in the night than in the day time; and in some there was a remarkable remission towards morning. The pulse at the wrist was in general quick, soft and fluttering, though not very low, and it was remarkable, that at the same time the pulsations of the heart were rather strong and smart than feeble. The heat was not very great, and the skin was commonly moist.

THESE symptoms continued for one, two, or three days. By that time it was usual for them to be greatly increased in such as died; and the patients, though commonly somewhat comatous from the beginning, now became much more so; yet even when the disorder was at the worst, they retained their senses, and would give distinct answers, when spoken to; although on being left to themselves, they lay for the most part in a lethargic situation, only raising up now and then to receive their drink. Great restlessness and jactation came on towards the end of the disease, the sick perpetually tossing from one side of the bed to the other, but they were still so far comatous as to appear to be asleep, immediately upon changing their situation or posture. An universal languor and dejection were observed in their countenances; the swelling of the face subsided; a profuse sweat broke out about the head, neck and breast, particularly when asleep; a purging in several came on; the difficulty of breathing increased, so as to be frequently almost entirely obstructed, and the patient died apparently from the suffocation. This commonly happened before the end of the fourth or fifth day; in several within thirty-six hours from the time the difficulty of breathing came on first. One child, however, lived under these circumstances to the eighth day; and the day before he died, his breath and what he expectorated, was somewhat offensive; but this was the

only instance in which I could discover any thing like a disagreeable smell, either from the breath or expectoration.

OUT of sixteen cases attended with this remarkable suffocation in breathing, seven died; five of them before the fifth day, the other two about the eighth. Of those who recovered, the disease was carried off, in one, by a plentiful salivation, which began on the sixth day; in most of the others, by an expectoration of a viscid mucus.

I DISTINGUISH between the salivation and expectoration, because in one the discharge seemed to come from the salivary glands, and was attended with little or no cough; in the others it manifestly came from the trachea, and was attended with an incessant cough; and I judged the salivation to have been a natural crisis, as the patient had taken but grs. vi of calomel before it came on. Her gums were not inflamed, her teeth were not loose, nor had her breath, or saliva, the smell of persons under a mercurial salivation. In this case the voice, in the space of a few hours, from being pretty strong and loud, became so low as to be with difficulty heard.

ONE of the first families in which this disease appeared was that of Mr. William Waddle of this place. He had seven children in his family, all of whom were taken ill one after another; the four first had the disease as I have just now described, and three of these died: the one who recovered was the instance I mentioned, in which the disease was carried off by a salivation. The other three were the youngest. They had not the difficulty of breathing, but in its stead, very troublesome ulcers behind their ears. These began with a few red pimples, which soon ran together, itched violently, and discharged a great deal of a very sharp ichor, so as to erode the neighbouring parts, and in a few days spread all over the back part of the ear, and down upon the neck. They all had a fever, particularly at night, and one of them had a perpetual tenesmus. This symptom appeared in several who had the difficulty of breathing, but in none to so remarkable a degree as in this child,

AFTER

AFTER this, many other children had similar ulcers behind their ears ; and some of them seemed slightly affected with the difficulty of breathing; but it never became alarming while this discharge continued. These ulcers would continue for several weeks, and appeared covered in some places with sloughs, resembling those on the tonsils ; and at last grew very painful and uneasy.

IN some cases they were attended with swellings of the parotid and sublingual glands, which subsided on the eruptions appearing behind the ears, and discharging freely, and again swelled upon the discharge being checked.

I MET with but two instances of any thing like this complaint in adult persons. Both of these were women ; and one of them had assisted in laying out two of the children that died of it. At first her symptoms resembled rather an inflammatory angina, but about the third day the tonsils appeared covered with thick sloughs; her pulse was low and feeble; she had a moist skin; a dejection of spirits; and some degree of anxiety, though nothing like the difficult breathing of the children.

THE other was a soldier's wife, who for some time, before she perceived any complaint in her throat, laboured under a low fever. Her tonsils were swelled, and entirely covered with sloughs, resembling those of the children ; but her breath was more offensive, and she had no suffocation.

I HAVE had an opportunity of examining the nature and seat of this disease, from dissection, in three instances. One was a child of three years old. Her first complaint was an uneasiness in her throat. Upon examining it the tonsils appeared swelled and inflamed, with large white sloughs upon them, the edges of which were remarkably more red than the other parts of the throat. She had no great soreness in her throat, and could swallow with little or no difficulty. She complained of a pain under her left breast; her pulse was quick, soft and fluttering. The heat of her body was not very great, and her skin was moist ; her face was swelled; she had a considerable prostration of strength, with a very great difficulty of breathing ; a very

remarkable hollow cough; and a peculiar change in the tone of her voice. The next day her difficulty of breathing was increased, and she drew her breath in the manner before described, as if the air was forced through too narrow a passage so that she seemed incapable of filling her lungs. She was exceedingly restless, tossing perpetually from side to side, was sensible, and when asked a question, would give a pertinent answer, but otherways she appeared dull and comatous. All these symptoms continued, or rather increased, untill the third night, on which she had five or six loose stools, and died early in the morning.

UPON examining the body, which was done on the afternoon of the day she died, I found the fauces, uvula, tonsils, and root of the tongue interspersed with sloughs, which still retained their whitish colour. Upon removing them, the parts underneath appeared rather pale than inflamed. I perceived no putrid smell from them, nor was the corps in the least offensive. The Œsophagus appeared as in a sound state. The epiglottis was a little inflamed, on its external surface, and on the inner side, together with the inside of the whole larynx, was covered with the same tough white sloughs, as the glands of the fauces. The whole trachea, from the larynx down to its division in the lungs, was lined with an inspissated mucus, in form of a membrane, remarkably tough and firm; which, when it came to the first subdivisions of the trachea, seemed to grow thin and disappear: It was so tough as to require no inconsiderable force to tear it, and came out whole from the trachea, which it left with much ease; and resembled more than any thing, both in thickness and appearance, a sheath of thin shammy leather. The inner membrane of the trachea was slightly inflamed; the lungs too appeared inflamed as in peripneumonic cases; particularly the right lobe, on which there were many large livid spots, though neither rotten or offensive; and the left lobe had small black spots on it, resembling those marks left under the skin by gun powder. Upon cutting into any of the larger spots, which appeared on the right lobe, a bloody sanies issued from them without frothing, whereas upon cutting those parts which appeared sound, a whitish froth, but slightly tinged with blood, followed the knife.

THIS is a faithful history of this complaint, as it appeared in all the cases I have met with.

Dr.

Dr. DOUGLASS, of Boston, in the year 1736, published an account of the first appearance of the disease in this country; from which I find that it put on much more malignant and putrid symptoms at that time, than it has lately been attended with, especially in this city, where diseases of the putrid kind seldom occur; and was so constantly attended with the erysipelatous symptoms, that he terms it an eruptive miliary fever, with an angina ulcusculosa. And even in this place, some of the oldest, and most respectable practitioners, assure me, they have seen, but a few years ago, the same disease of which I am now treating, attended both with the erysipelatous appearances and highly putrid symptoms.

UPON the whole, I am led to conclude that the present disease, as well as other similar diseases, which have made their appearance at different times, and in different places, arose from a particular disposition of the air, or miasmata sui generis; which more or less, according to particular circumstances, generate an acrimony in the humours, and dispose them to putrefaction; and which have a singular tendency, to attack the throat and trachea, affecting the mucous glands of these parts, in such a way, as to occasion them, to secrete their natural mucus, in greater quantities than is sufficient for the purposes of nature: and which in this particular species, when secreted, is either really of a tougher or more viscid consistence than natural, or is disposed to become so from rest and stagnation.

THE disease I have described, appeared to me to be of an infectious nature, and as all infection must be owing to something received into the body, this, therefore, whatever it is, being drawn in by the breath of a healthy child, irritates the glands of the fauces and trachea, as it passes by them, and brings about a change in their secretions. The infection, however, did not seem in the present case to depend so much on any generally prevailing disposition of the air, as upon effluviæ received from the breath of infected persons. This will account why the disorder should go through a whole family, and not affect the next door neighbour; and hence we learn a very useful lesson, namely, to remove all the young children in a family, as soon as any one is taken with the disease; by which caution, I am convinced, many lives have been, and may again be preserved.

I SHALL



I SHALL now proceed to deliver the method of cure, which was found most successful in the disease, as far as it fell under my own observation. And in the first place, as from all the symptoms related, it is evident that this disorder is not always, and in every stage, attended with any remarkable degree of putrescency; and from the dissections it appears, that an inflammation of the lungs, if not the cause, may at least be the consequence of the distemper, one would imagine that V.S. and evacuations were not totally to be forbid; and accordingly we find Dr. Douglass directing us, that if the fever is high, and the patient is plethoric or accustomed to venesection, to take away some blood, but with discretion: And if the tonsils are much inflamed, with great pain and difficulty in swallowing, to use venesection in the jugulars. And Huxham acknowledges, in the ulcerous sore throats of which he treats, "That there were certainly some of them with a pretty smart fever, that bore bleeding at the beginning with advantage, and that he was obliged in several to give Nitre with diaphoretics."

BUT Fothergill speaking of the sore throat distemper, which came under his notice, and which seems to be of a more highly putrid kind, assures us, that although in such cases he has been induced to order bleeding, yet it did not appear to have any advantageous effects; and concludes, that notwithstanding the vehemence of the symptoms, it is proper in general to omit this evacuation; nor can I hear of any person who has used it, in the sore throat (which appeared lately amongst us) with success; so that I hardly dare venture to prescribe it, but must leave it to the discretion of the Physician, untill farther experience shall confirm its utility, or forbid its use.

THERE is something very singular in the tendency of the virus in this disease, as I have already hinted, to attack the throat and trachea, nor are the effects it produces there less remarkable. Dr. Fothergill, in his account of the putrid sore throat, describes the sloughs on the tonsils, as mortified escars; but in that species of sore throat I met with, they appeared as in the trachea, to be nothing more than the mucus of the part, preternaturally thickened into the form of a membrane. At first I imagined this to be only a peculiar kind of pus, which

which is sometimes found upon the surface of internal inflamed membranes ; but upon removing it, the membrane of the trachea did not appear to have been sufficiently inflamed, to justify such an opinion. And in a case I lately had an opportunity of examining, where the patient died of a very violent inflammation of the internal membrane of the trachea, there was no such mucous lining to be discovered upon it. Nor can I think it the effect of any spasm or constriction of the lungs, as I never knew it remarked as occurring in such as have died of spasmodic asthma, nor is it long since I had an opportunity of being satisfied as to this particular, in the case of a sailor, who actually died in a violent fit of a spasmodic asthma, which had lasted for several days ; and yet there was not the least appearance of any such mucous membrane after death, either in the large or smaller branches of the trachea. This morbid appearance is particularly noticed by several gentlemen who have favoured us with an account of the dissections of those who have died under an angina \*. Dr. Monro, sen. found it in several he dissected, and § Rolandus Martin, Professor of Anatomy at Stockholm, mentions a very remarkable instance of it, where this mucous membrane descended into the minutest branches of the trachea arteria, growing thinner as it descended deeper into the lungs, untill it resembled the membrane which lines the shell of an egg. He adds, that the lungs were not inflamed, nor in the least injured, so that the infant died merely from the suffocation. And even those who have written of the ulcerous sore throat, as Drs. Huxham, and Douglass, and have not given the appearances from dissection, yet have mentioned many mucous linings being expectorated, which Douglass compares to the cuticle raised by vesications; and Huxham conceived to be really pieces of the internal membrane of the trachea. So that this is a circumstance which seems to be peculiar to the disease; and I believe those who die, on the second or third day, with the strangulated breathing, are generally suffocated, by this membrane. The affection, therefore, of the mucous glands, must be considered as the proximate cause of this disease, and readily accounts for all the other symptoms, and from it only, especially in the beginning of the complaint.

\* See Dr. Withering's Thesis on the Angina Gangrenosa.

§ Idem.

can we safely draw our indications of cure ; paying at the same time a constant attention to any symptoms of putrescency that may occur.

And it is from viewing the disease in this light only, that we can account for the use of Mercury in it ; a medicine, which, if we consider it as a spasmodic complaint, cannot possibly have any good effect ; or if we look upon it merely as a putrid disease, seems directly contrary to every intention of cure ; but which, nevertheless, undoubted experience has proved to be highly beneficial. And indeed, if we consider the peculiar acrimony which this disease occasions in the fluids in general, independent of putrefaction, and the inspissation of the mucus of the trachea, we might reasonably conclude a priori, that Mercury, which in general corrects acrimony in a very remarkable manner, thins all the mucous secretions, particularly those of the mouth and fauces, and affects the breath very early, would be beneficial in it, and either prevent the formation of this membrane, or promote its separation and expulsion, when already formed. Dr. Douglass viewing the matter in this light first tried it, and meeting with success, afterwards recommended it to others ; and, in a very few words, has explained both his theory and practice in this particular. “ Any affection of the throat (says he) does frequently produce a natural pytalism. Mercurials used with discretion, are a kind of specific in such like ulcers, and ulcuscula, and in fact here moisten the throat and mouth, stop the spreading of the ulcuscula, and promote the casting off of the sloughs ; and as an accessory advantage, the patients being mostly children, destroyed worms. Amongst all the preparations calomel answered best. The gentle vomiting and few stools that it occasioned in some, did not confound the natural course of the distemper. Turbith produces too strong a revulsion, and the eruption is thereby too much diverted. This distemper did not well bare any other evacuation but Mercurials.” And in another place, says, “ the despumation of this acrid iniquation of the juices in our distemper, that is, its natural crisis, seems to be by the patent and salutary emunctories of the fauces and skin. In corrosive taints, v. g. venereal and others, a Mercurial pytalism, and sudorific decoction of the woods answer  
“ best.

“ best, this gave us the hint of promoting the tendency of  
 “ nature in our illness, by mercurials and gentle breathing  
 “ sweats in bed, which with good management seldom failed,  
 “ excepting where the necrosis was irremediable from the  
 “ beginning.”

THERE is a singularity in this Gentleman's stile, but his observations are accurate and judicious ; and, as he says himself, being founded upon real, not imaginary cases, must therefore be of permanent truth. And indeed the case I met with, in which the disorder (and in no trifling degree) was carried off by a very copious salivation, is, of itself, almost a sufficient vindication of this practice ; and together with the case of that child whose body I first opened, where I saw the most powerful antiseptics faithfully administered, which not only failed of success, but did not even mitigate the symptoms, was what first led me to enquire more minutely into the nature of the disease, and of the remedies which had been used with most success in its cure.---Upon reading Dr. Douglass's little essay, (which gave me the greater satisfaction because he wrote upon the disease as it appeared in this country, and under his own immediate observation,) I found he placed his chief dependence upon mercurials, which I was the more readily induced to make trial of, from the appearance I found from dissection, and the idea I thence naturally formed of this complaint ; and the experience I have had of their good effects, fully justifies the recommendation Dr. Douglass has given of them ; as the more freely I have used them, the better effects I have seen from them. Calomel is what I have commonly used, and have given it to the quantity of 30 or 40 grains, in five or six days, to a child of three or four years old ; not only without any ill effects, but to the manifest advantage of my patient ; relieving the difficulty of breathing, and promoting the casting off the sloughs, beyond any other medicine. That it may more immediately enter the blood, and act more powerfully as an attenuant, it should at first be joined with a mild opiate ; and what is a little remarkable, is, that given in this way, it seldom or never raised in children any salivation ; tho' indeed I should be apprehensive of no ill consequences from it, if it should. After the first or

second dose, the opiate should be omitted, as then the mercury will not be so apt to go off by the intestines, and the opiate if continued will, by lessening the sensibility of the trachea, counteract in some measure the attenuating effects of the calomel, and also increase the coma. The operation of the calomel, as an expectorant, will be very much promoted by a prudent use of oxymel of squills, or least that should purge, by ipecacuhana, given so as to puketwo or three times.

BUT although I consider mercury as the basis of the cure, especially in the beginning of this disease, I by no means intend to condemn, or omit the use of proper alexipharmics and antiseptics; of which the serpentaria, contrayerva, and peruvian bark are the most powerful, and have been used with the greatest success. Sweating is certainly one way, by which nature carries off this disease; inasmuch that Huxham declares he did not remember to have had one patient miscarry, who fell into a soft, easy, universal sweat: and therefore, whatever method of cure was pursued, this should be always connected with it. The patient should be kept in bed, and as the disease has a putrid tendency, the diaphoretics should be of the alexipharmic and antiseptic kinds. The bark is certainly a most powerful antiseptic, and when the symptoms of putrefaction, such as a moist clammy skin, highly putrid breath, and hæmorrhages appear, must be attended with advantage. But early in the disease, while the skin continues dry, attended with a great difficulty of breathing, and the symptoms of inflammation rather than those of putrefaction prevail, it should be omitted; and here the removal of the disorder should be attempted, chiefly, by mercurials and mild sudorifics. And indeed I think the whole art, in the cure of this disease, depends upon properly timing these remedies, and insisting upon one or the other, as the symptoms of putrefaction do, more or less, prevail.

BUT besides a salivation, and sweating, nature frequently carries off this disease by an eruption on the skin, ulcers behind the ears, or in other parts of the body, or an external swelling of the throat, all of which seem evidently to indicate the use of blisters. And accordingly Drs. Fothergill and Huxham recommended

commended them ; particularly Dr. Huxham, who says he has sometimes blistered the throat from ear to ear with great success. It has indeed been said, that they sometimes produced mortifications, and that even the discharge they occasioned, seemed to be more than the patient could bear ; but as I have never heard this remark confirmed, I cannot help imagining, that the cases in which they were tried, were particularly unfavourable, and more remarkably putrid than is usual ; for in the child, who died on the eighth day, I applied blisters behind the ears, and they had not the least appearance of mortification or gangrene, even after the child's death. And in a case of very great danger, which I lately met with, they were certainly of great service, and very effectually supplied the place of those natural discharges, by which nature carries off this disease.

I would recommend their application early in the disease, from the same principle that they are applied in inflammatory angina's or pleuritis ; to relieve the throat and trachea, and to derive the flow of humours from the internal, to the external parts.

As the case to which I refer was a very remarkable one, in which the disease was attended with some of the worst symptoms I ever saw, and the method I have been advising was strictly pursued, and attended with success, I cannot help considering this success to be in some measure a proof of the propriety of the treatment, and for that reason shall here insert the case at large.

THE patient was a child of about two years and a half old, who had complained for about a week of a sore throat and hoarseness. The day before I saw her she had some difficulty of breathing, which on that day was greatly increased, and exactly resembled the breathing of the children whose cases I have before related, when most strangulated. Upon examining her throat I found the tonsils swelled, inflamed, and covered with sloughs of a yellowish colour. Her breath was not in the least offensive ; her pulse was small and fluttering, and her skin pale and clammy. Two very large blisters were immediately applied, one behind each ear, so as to meet at her

throat. She took four grains of calomel, with a quarter of a grain of opium, and was directed to drink a decoction of serpentar : virg : disguised with old metheglin, as a common drink ; and as her skin was pale and clammy, she had a clyster of one drachm of cort. peruv. and ten grains of serpent. virgin. in milk, to be administered every six or eight hours ; but of these she received but one that night ; and as we found she did not retain them, they were soon discontinued ; nor could she be prevailed on to drink but very little of the decoction.

I saw her several times during the first day, and she appeared worse at each time. About eight that evening she had something like a fit ; and, at nine, the strangulation in her breathing was much increased ; her pulse was sunk ; her countenance changed ; her nose appeared to be pinched up ; her eyes were fixed and glassy ; a blue ring was observable about her mouth, and she was comatous. I left her, expecting she would soon die. Her blisters had been dressed a little before ; had risen well ; and discharged freely ; and, within two or three hours, as I was informed by the watches who sat up with her, she seemed to revive. The next morning I was greatly surprised, not only to find her living, but in a sitting posture, eating her breakfast, with little or no difficulty of breathing, having her natural countenance returned, with some colour in her cheeks, and her pulse rather risen. At twelve o'clock however her breathing grew more difficult, and though not so strangulated as the day before, was very quick and uneasy. From this time for five days she remained in a very dangerous situation, and gave but little reason to expect her recovery. Her breathing continued quick and laborious, and her voice was almost entirely gone ; her pulse was quick and low ; she sweated profusely, particularly at nights, and constantly lay in her bed in a comatous situation, giving however distinct answers when spoken to. I could discover nothing disagreeable in her breath, though sometimes what she brought up was a little offensive. During this time, and for many days after, the blisters discharged considerably, and the matter of the discharge was so sharp and corrosive as to inflame and erode the skin almost from the chin to the sternum. She constantly took twice a day

day three grains of calomel ; and, except the first dose, without opium, until she had taken upwards of thirty grains ; and continued the use of the decoction of serpentaria in as large quantities as she could be prevailed on to take it. On the seventh day from the time I first saw her, she began to cough a good deal, with which she expectorated pretty freely, and brought up some very tough mucus. She breathed more freely, opened her eyes and looked about with some sprightliness, and drank a glass or two of wine. From this time she gradually grew better, and by the fifteenth day from the time I saw her, all her symptoms had left her, except great weakness, and so remarkable a hoarseness, or rather loss of voice, that it was with great difficulty she could be heard ; and a peculiar sensibility of the larynx with regard to fluids, so that the moment she attempted to drink she fell into a fit of coughing, although she could swallow solid food without difficulty. This however soon left her, but her weakness and lowness of voice continued, a much longer time, so that in two months she could hardly walk alone, or speak in a tone above a whisper.

When ulcers appear behind the ears, or in different parts of the body, they require a particular treatment ; the discharge should be encouraged by frequently washing them with warm milk and water, and poultices of bread and milk be applied to them ; but greasy applications always do harm, as they check the discharge : nor will they bear digestives. I was in some cases, however, after the discharge had continued for a great length of time, obliged to check it, with a very weak solution of Vitriol. alb. which I found answered this intention well ; nor did I ever observe any ill effects from it : But I always used it with great caution, and never ventured on it, until I had corrected the general virus of the disease, by a previous use of Mercurials. In respect to gargles, I would entirely follow Dr. Fothergill's advice. Fomentations applied to the breast, and fumigations with the steams of some mild aromatic herbs, and warm vinegar, not only give ease, but serve, in some measure, to attenuate the mucus in the trachea ; and by gently stimulating the lungs, raise a slight cough, and promote the expectoration. The treatment of  
any



any accidental symptoms, after endeavouring to form a just idea of the disease, must be left to the discretion of the Physician.

SUCH are the sentiments, which, from an attentive observation of the symptoms, and progress of this disease, I have entertained of its nature, and most proper treatment, which nothing, but a real desire of contributing to the stock of medical facts, has induced me to offer to the notice of the public; these being the only foundation of a certain and rational practice; and I can answer for the fidelity and candor with which I have related, what are here preserved.

*SUBSTANCE of some PAPERS that could not be inserted in their proper Place.*

*The following account of an Aurora Borealis was received from a Correspondent, at Lancaster, in Pennsylvania, viz.*

“**T**HAT about half an hour after seven in the evening of January 5th, 1769, there was seen at that place, a bright crepusculum, rising out of the North; which in about a quarter of an hour extended itself from N. E. to N. W.---The upper part was deeply notched, and rose in one place to the height of near  $40^{\circ}$ . above the horizon.

“ AT three quarters after eight, it was so light in the Northern hemisphere, that a person, who felt no decay or infirmity of eye-sight, might easily have read a book printed in Double Pica Roman.

“ AT nine o'clock, five columns or pyramids, of a very vivid *Red*, rose perpendicular to the horizon, in the N. W.---- They were unequal in their heights: For, whilst two of them rose almost to the zenith, others did not exceed  $45^{\circ}$ . They changed colours alternately from a fiery red to a purple; from that to a yellow; from yellow to a flame colour; and then to red again. These changes were so sudden and quick that they affected the sense so strongly as to raise horror.

“ AT a quarter after nine, the columns changed their perpendicular position to an oblique one, and immediately began  
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